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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,593	12/31/2003	Joseph Patino	CE11882JEM	8591
Larry G. Brown Motorola, Inc. Law Department 8000 West Sunrise Boulevard Fort Lauderdale, FL 33322				
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EXAMINER				
BOATENG, ALEXIS ASIEDUA				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/750,593

Applicant(s)

PATINO ET AL.

Examiner

Alexis Boateng

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-14 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-14 and 16-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 , 10, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toya (U.S. 6,040,680) in view of Goto (U.S. 5,600,225).

Regarding claims 1 and 19, Toya discloses a method for charging a battery, comprising the steps of:

supplying a charging current from a first charger (figure 2 item 101) to a battery (figure 2 item 111) through a first charging circuit (figure 2 item 120; column 6 lines 1 - 8);

sensing the charging current to the battery. (figure 2 item 125);

selectively signaling an electric device from the battery to indicate at least one parameter of the battery as the battery is receiving the charging current (column 6 lines 29 - 56).

Toya does not disclose wherein response to selectively the electronic device, disabling a second charging circuit wherein the electronic device includes the second charging circuit and the second charging circuit is capable of directing charging current to the battery if charging current is being fed to the electronic device from another charger.

Goto discloses in figure 2 wherein item 209 is a second charging circuit capable of directing the charging current to the battery if the current is being fed to the electronic device from another charger (column 4 line 49 - column 5 line 14). At the time of invention, it would have been obvious to a person of ordinary skill in the art modify the Toya reference with the Goto reference so that the device is not damaged by overcharging.

Regarding claim 2, Toya discloses wherein the charging current from the first charging circuit is from wireless charger (Figure 2 item 101).

Regarding claims 3 and 12, Toya discloses wherein the parameter is at least one of a charging state of the battery and predetermined current threshold of the charging current (column 6 lines 1 - 8 and lines 41 - 57).

Regarding claim 10, Toya discloses a method for charging a battery, comprising the steps of:

- an electronic device (figure 1 item 103);

- a first charger (figure 2 item 101); and

- a battery (figure 2 item 111), wherein the battery supplies power to the electronic device wherein the first charger supplies a charging current to a battery through a first charging circuit (figure 2 item 120; column 6 lines 1 - 8); and wherein the battery includes a charging monitor that senses the charging current (figure 2 item 125);

- selectively signaling an electric device from the battery to indicate at least one parameter of the battery as the battery is receiving the charging current

column 6 lines 29 - 56: current sensing circuit 125 indicates that the battery is receiving charge);

Toya does not disclose wherein the electronic device includes a second charging circuit and is designed to disable the second charging circuit in response to the signal indicating the parameter of the battery, wherein the second charging circuit is capable of directing charging current to the battery if charging current is being fed to the electronic device from a second charger.

Goto discloses wherein the electronic device includes a second charging circuit and is designed to disable the second charging circuit (figure 2 item 209) in response to the signal indicating the parameter of the battery, wherein the second charging circuit is capable of directing charging current to the battery if charging current is being fed to the electronic device from a second charger (column 4 line 49 – column 5 line 14). At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the Toya reference with the Goto reference so that electronic device is protected from overcharging damage.

Regarding claim 11, Toya discloses wherein the charger is wireless charger (figure 1 item 101; column 1 lines 1 -17)and the charging monitor is a processor (column 7 lines 24 - 38).

3. Claims 4—5, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toya (U.S. 6,040,680) in view of Goto (U.S. 5,600,225) as applied to claim 1 and in further view of Watts (U.S. 2002/0175658).

Regarding claims 4 and 13, Toya and Goto do not disclose wherein the battery signals the electronic device over an input/output line and wherein the input/output line is a preexisting reading conductor. Watts discloses in figure 2 wherein the battery signals the electronic device over an input/output line, figure 2 items 16 and 17, and wherein the input/output line is a preexisting reading conductor, figure 2 item 15. At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the Toya and Goto reference so that information may be passed along between the charger and the device.

Regarding claims 5 and 14, Toya and Goto do not disclose wherein the preexisting reading conductor is a thermistor line. Watts discloses wherein the preexisting reading conductor is a thermistor, figure 2 item 15. At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the Toya system with the Watts system so that the controller can monitor the temperature and charging operations of the system.

4. Claims 7 – 9, and 16 - 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toya (U.S. 6,040,680) in view of Sengupta (U.S. 6,320,354).

Regarding claims 7 and 16, Toya does not disclose wherein the method comprises the step of updating a charging indicator of the electronic device. Sengupta discloses in column 5 lines 52 - 65 wherein a charge indicator is used to identify the level of charge. At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the Toya system with the

Sengupta system so that the system shows the user when the battery needs to be charged and when charging should be stopped.

Regarding claim 8 and 17, Toya does not disclose the invention as claimed.

Sengupta discloses in column 3 line 50 - column 4 line 33 wherein controller toggles the between input/output line between a high state, a low state and a release state during the signaling step. At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the Toya system with the Sengupta system so that controller can be recharged.

Regarding claims 9 and 18, Toya discloses a method of wirelessly charging a battery, comprising the steps of:

- supplying a charging current from a wireless charger to a battery (column 5 lines 39 - 49);

- sensing the charging current (figure 2 item 125).

Toya does not disclose selectively toggling between high, release and low states an input/output line between an electronic device and the battery to indicate to the electronic device at least one parameter of the battery as the battery is receiving the charging current, wherein the release state is a value that is between the high and low states. Sengupta discloses in column 3 line 50 - column 4 line 33 wherein controller toggles the between input/output line between a high state, a low state and a release state during the signaling step. At the time of invention, it would have been obvious to a person of ordinary skill in

the art to modify the Toya system with the Sengupta system so that controller can be recharged.

5. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sengupta (U.S. 6,320,354) in view of Goto (U.S. 5,600,225).

Regarding claim 20, an electronic device (figure 5 item 504), comprising:

a processor (figure 5 item 507);

an input/output line coupled to the processor (figure 5 item 510);

a charging circuit that receives power from a first charger (figure 4 item 404); and

a charging indicator (figure 7);

Sengupta does not disclose wherein the processor is operable to detect signals from a battery having a second charging circuit over the input/output line, wherein the second charging circuit receives power from a second charger, and in response to the detection of the signals, the processor is further operable to disable the second charging circuit or update the charging indicator.

Goto discloses wherein the processor (figure 2 item 209) is operable to detect signals from a battery having a second charging circuit over the input/output line (column 4 lines 49 – column 5 line 14), wherein the second charging circuit receives power from a second charger (figure 2 item 211), and in response to the detection of the signals, the processor is further operable to disable the second charging circuit or update the charging indicator (column 4 lines 23 – 48). At the time of invention, it would have been obvious to a person

of ordinary skill in the art to modify the Sengupta system with the Goto system so that the electronic device may be effectively charged and protected from damage.

Response to Arguments

6. Applicant's arguments with respect to claims 1, 9, 10, 18, and 19, have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexis Boateng whose telephone number is (571) 272-5979. The examiner can normally be reached on 8:30 am - 6:00 pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Akm I. Ullah can be reached on (571) 272-2361. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Akm Enayet Ullah/
Supervisory Patent Examiner, Art
Unit 2838

AB